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SPECIAL MACHINERY

MANUFACTURED BY

GREENLEE BROS. & CO.,

Wood Working Machinery

SASH, DOOR AND BLIND MACHINERY

A SPECIALTY.

227, 229 & 231 West Twelfth Street,

CHICAGO.

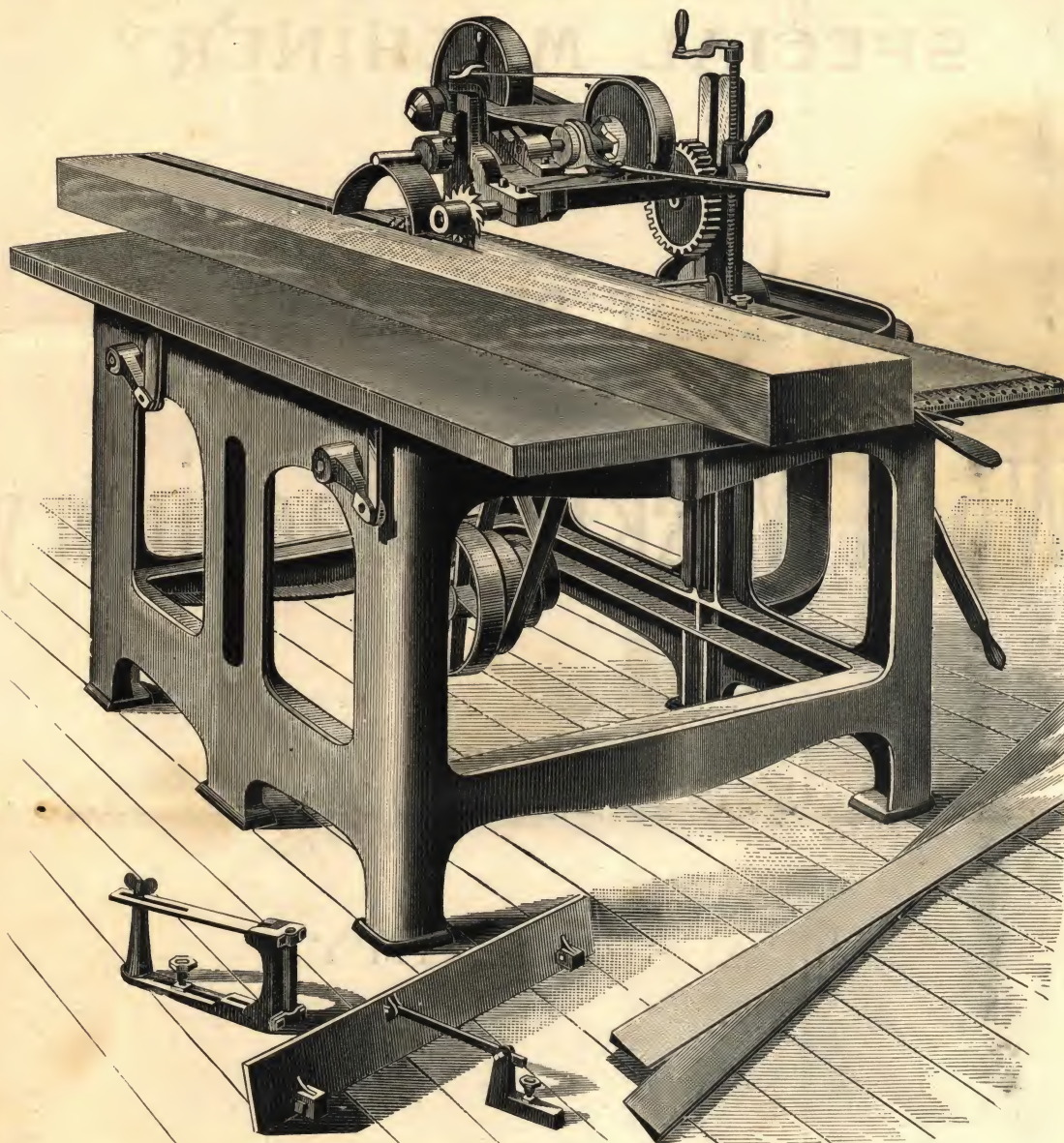
SEND FOR ILLUSTRATED CATALOGUE.

TR-5

6347C

Greenlee Improved Self-Feeding Saw Table

PATENT MAY 29, 1881.



Price, \$275.

The above cut represents our No. 3 Self-Feeding Saw Table, Heavy all Iron Top and with all our latest improvements complete showing attachment for making siding. This attachment we will put on any No. 2 or No. 3 Table for \$35 extra, and it will do as much work in cutting siding as a common siding saw, and do it better.

Our No. 3 Self-Feeding Saw Table is especially adapted to *heavy sawing* of all kinds, such as Car, Agricultural Works, Planing Mills, Wagon Shops, &c., and will do the work of two common Saw Tables, and do it better. It will also do all the work that the No. 1 and No. 2 will. The Table is made to carry a 30 inch saw and has steady pin in table to prevent vibration of saw. It is designed especially for sawing heavy timber, hardwood lumber etc., and is built very strong and durable for extra heavy work; end rolls.

The Arbor is made from $1\frac{1}{2}$ inch steel, and runs in long self-oiling bearings. We will send to any responsible party a machine, and if it is not satisfactory after 20 or 30 days trial, it can be returned without expense to them. The pulley on Arbor is 10 or 12 inches in diameter and 8 inch face.

GREENLEE BROS. & CO.,
Manufacturers of WOOD WORKING MACHINERY,

227, 229 & 231 West Twelfth Street, CHICAGO, ILL

Notice.—We understand there are parties who are manufacturing a machine similar to ours, which is an infringement on our patent, and a very inferior machine. We wish to caution every one against buying them.

SEND FOR ILLUSTRATED CATALOGUE AND DISCOUNT.

Greenlee Improved Self-Feeding Saw Table

PATENT MAY 29, 1881.



The above represents our No. 2 Self-Feeding Rip Saw Table, with Patent Top raising Attachment, especially adapted to heavy sawing of all kinds, such as Agricultural Works, Planing Mills, Wagon Shops, &c, and will do the work of two common saw tables, and do it better. It will do all the work that the No. 1 will as well. We make two different styles of Tops, one all iron and the other wood and iron; the latter has iron in the center running lengthwise of the table. The No. 2 is made with all the improvements that No. 1 has, lever gauge, lever for regulating the feed, etc. It also has a heavy outside bearing, and is otherwise made strong and durable for heavy work. Our No. 2 machine is made to carry any saw as large as 24 inches, in diameter, if so desired, and will rip lumber up to 8 inches thick, or 15 inches wide. We can build them to rip wider for special work, if ordered that way.

The Arbor is made from $1\frac{3}{4}$ steel, and runs in long self-oiling bearings.

We will send to any responsible party a machine on trial, and if it is not satisfactory after 20 or 30 days trial, it can be returned without expense to them. The pulley on arbor is 8 or 10 inches in diameter and 8 inch face.

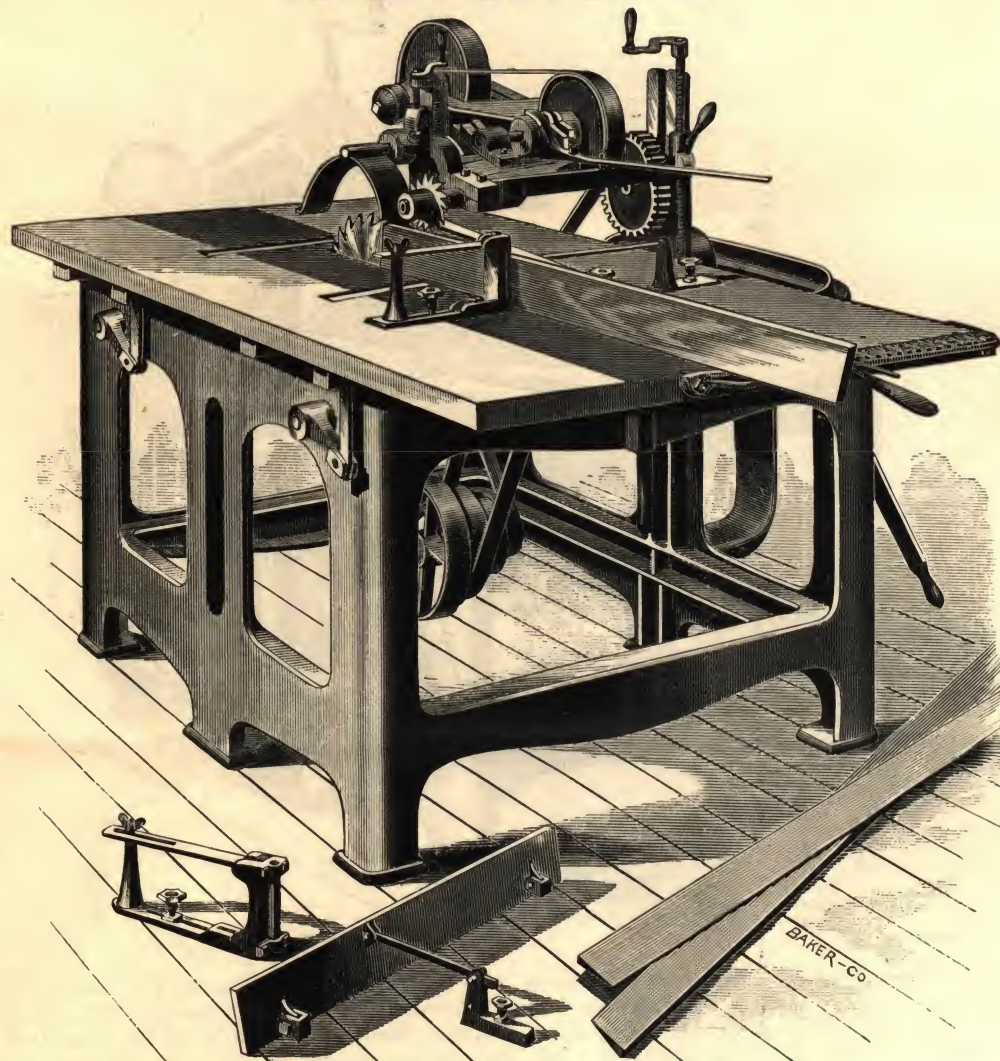
Attachment for Sawing Siding.—On the No. 2 or No. 3, where parties want, we put on an attachment for sawing siding, which will be \$35 extra. It will do as much work in cutting siding as a common siding saw, and do it better

Price, No. 2, with wood and iron top.....	\$200
“ “ 2, “ patent top-raising attachment.....	225
“ “ 2, “ “ “ all iron top.....	250

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 227, 229 & 231 West Twelfth Street, CHICAGO, ILL.
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Greenlee Improved Self-Feeding Saw Table

PATENT MAY 29. 1881



The above cut represents our No. 2 Self-Feeding Saw Table with all our latest improvements complete, showing attachment for making siding, which can be taken off in one minute, leaving the table a regular No. 2 Self-Feeding Saw Table. This attachment we will put on any No. 2 Table for \$35 extra, and it will do as much work in cutting siding as a common siding saw, and do it better.

Our No. 2 Self-Feeding Saw Table is especially adapted to *heavy sawing* of all kinds, such as Car, Agricultural Works, Planing Mills, Wagon Shops, &c., and will do the work of two common Saw Tables, and do it better. It will also do all the work that the No. 1 will.

The Arbor is made from $1\frac{3}{4}$ Steel, and runs in long self-oiling bearings.

We will send to any responsible party a machine on trial, and if it is not satisfactory after 20 or 30 days trial, it can be returned to us without expense.

The pulley on Arbor is 8 or 10 inches in diameter, and 8 inch face.

For prices see No. 2 Table.

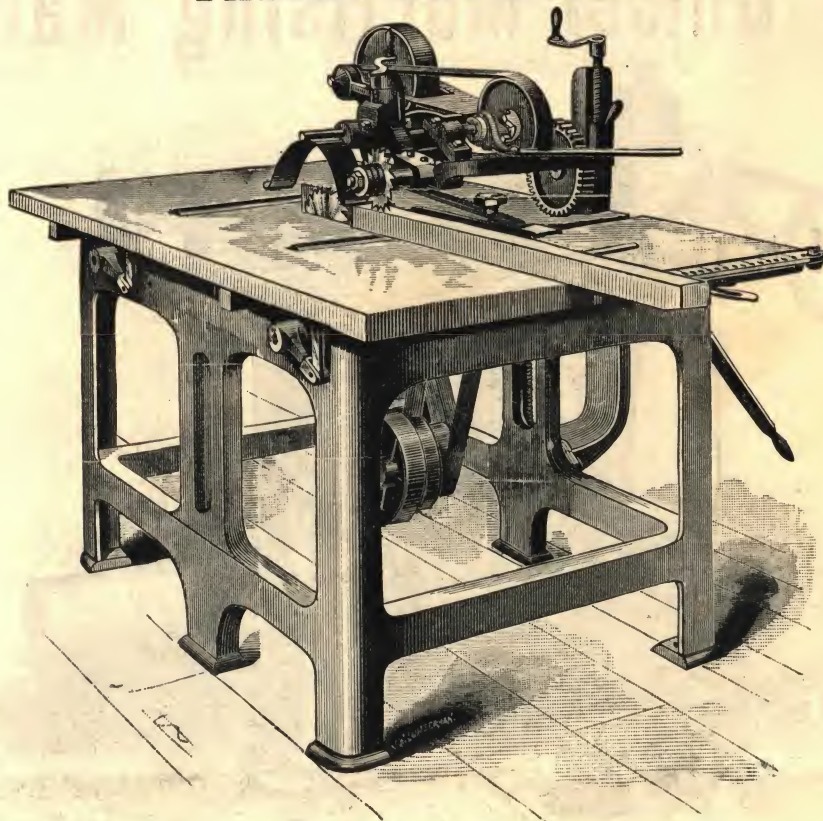
GREENLEE BROS. & CO.,
Manufacturers of Wood-Working Machinery
229 & 231 WEST TWELFTH STREET, CHICAGO, ILL.

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SEND FOR ILLUSTRATED CATALOGUE AND DISCOUNT.

Greenlee Improved Self-Feeding Saw Table.

PATENT MAY 29, 1881.



The above represents our No. 1 Self-Feeding Rip Saw Table, with Patent Top-raising Attachment, it is the best machine made for the purpose intended. It will save its cost in a very short time, over the old way of ripping lumber. It will do the work of two or three common saw tables, with very much less hard work.

It takes the place of the common rip-saw table, doing all kinds of ripping in Planing Mills, Sash and Door Factories, Furniture Factories, etc. It has a very strong feed, and the mark made by the feed is taken out with the saw, which makes it desirable for planed lumber. The feed shaft is set at such an angle that the feed is sure to carry the lumber to the gauge. It has three different feeds, and is so made that the feed can be stopped instantly or raised up out of the way, and it then can be used as a common table. The saw is fully protected by a shield; there is no chance for the operator to cut his fingers, or pieces to fly back. The feed adjusts itself to different thicknesses of stuff. We furnish one saw, one feed, and one extra collar for each table. It can be used for sawing blind slats or other small work, by using two or three saws in a gang. It will rip 13 inches wide. We make two different styles of table tops, one of hardwood strips glued together, and one with iron in the center running lengthwise of the table. The arbor is made from $1\frac{3}{4}$ steel, and runs in self-oiling boxes with long bearings. We wish to call particular attention to our lever gauge—it can be changed and set by the index to different widths with one motion of the hand. We have two different devices for raising the Table Top—one the ordinary way—the top being hinged at the rear, with screw in front for raising the front end; our patent improved way, the weight of the top is counterbalanced by weights, and the top can be raised parallel with the frame by means of a lever to any desired height up to 4 inches, and held there firmly in position. The frame is all iron and well made. Every machine guaranteed to do as represented, and a trial will satisfy any one that the old way of ripping lumber is far behind the times. We have over three thousand of these machines in successful operation, and the universal testimony of those using them is, that they would not be without them for four times their cost.

We will send to any responsible party a machine on approval, and if it is not satisfactory after 20 or 30 days' trial, it can be returned, and we will pay the freight both ways.

The pulley on arbor, is $5\frac{1}{2}$ inches in diameter, 6 inch face, and should make from 3,000 to 3,500 revolutions per minute.

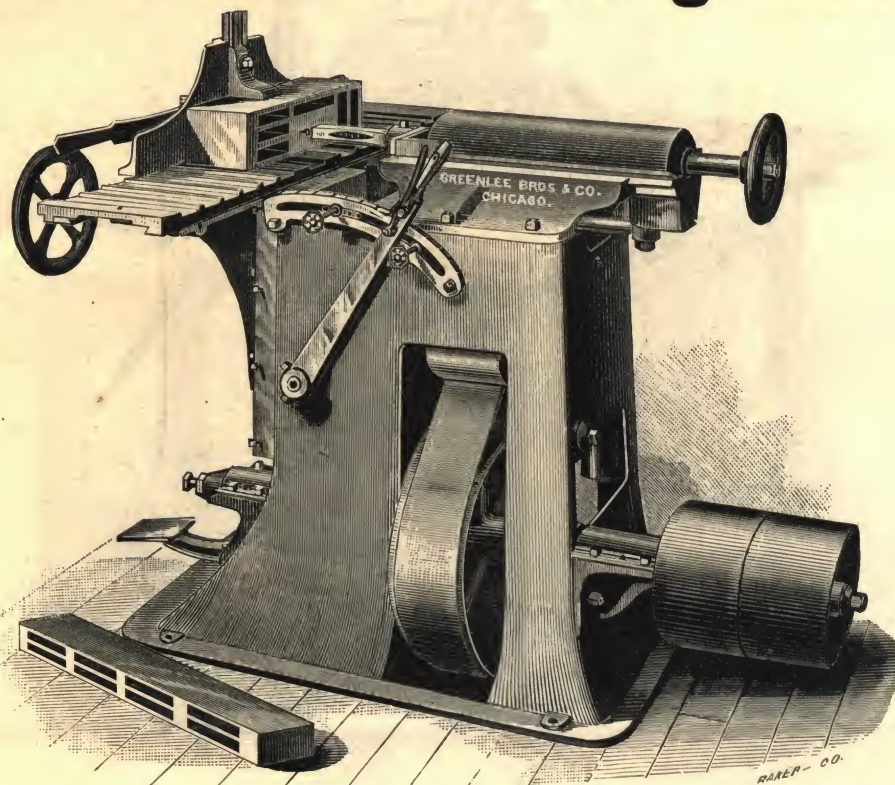
Price, No. 1, with hinged wood top, wood and iron top.....	\$175
“ “ 1, “ patent top-raising attachment.....	200
“ “ 1, “ “ “ “ all Iron Top.....	225

GREENLEE BROS. & CO.,
Manufacturers of WOOD WORKING MACHINERY,

227, 229 & 231 West Twelfth Street, CHICAGO, ILL.

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GREENLEE'S Hollow Chisel Mortising Machine.



Price, \$400.

One of the latest and most valuable acquisitions in the way of Wood-Working Machinery is a newly patented Mortising device for car builders, agricultural, wagon and cabinet work. It is styled the **Hollow-Chisel Mortising Machine**. The process is entirely original in its application, the machine accomplishing a result in no other way attainable. The work is performed by a **Hollow Chisel**, the bit working inside, while in turn the chisel prevents the bit from chipping or slivering the wood outside the mortised space. The machine works with the utmost facility in hard wood as well as in soft, and is so adjustable as to mortise at any desired angle, or in any manner suggested by the emergency; in reality opening up a new field of possibilities in such work. The machine is regularly and uniformly operated by means of stops and lever appliances. A finished mortise can be made in the time ordinarily required in laying out the work. The levers are in handy reach, a single movement in each case being sufficient to throw the table in position, or to raise or lower the cutting bed of the machine. The depth of cut and the distances between mortises, perpendicularly or horizontally, are made uniform, and regulated at will by means of stops and other effective mechanism. Mortises can be cut very closely together, even to the extent of leaving a wall of wafer-like thinness, as a separating sheet, which is not subjected to the slightest strain or disturbance, a result not hitherto obtained. The whole mechanism being so simplified and perfected as to require comparatively little labor or attention on the part of the operator. There is no downward or pounding motion to jar and strain the machine, and try the muscles and nerves of the operator, who usually bears the brunt with his foot on the treadle. The movement, on the contrary, is direct and forward. The machine is substantially and durably constructed of good materials. It will mortise $1\frac{1}{4}$ inches square and under to the smallest size required, mortising to any desired length. The lower engraving shows a piece of timber which has been mortised by the machine, from which as good an idea of the work may be obtained as is possible without witnessing the machine in operation.

We will send a machine to any responsible party, on a trial of thirty or sixty days, and if, after using it that length of time they do not think it worth what we ask for it, they are at liberty to send it back at our expense each way.

Tight and loose pulleys are 10 inches in diameter 6 inch face; should make 1200 revolutions per minute.

GREENLEE BROS. & CO.,
Manufacturers of Wood-Working Machinery,

227, 229 & 231 WEST TWELFTH ST., CHICAGO, ILL.

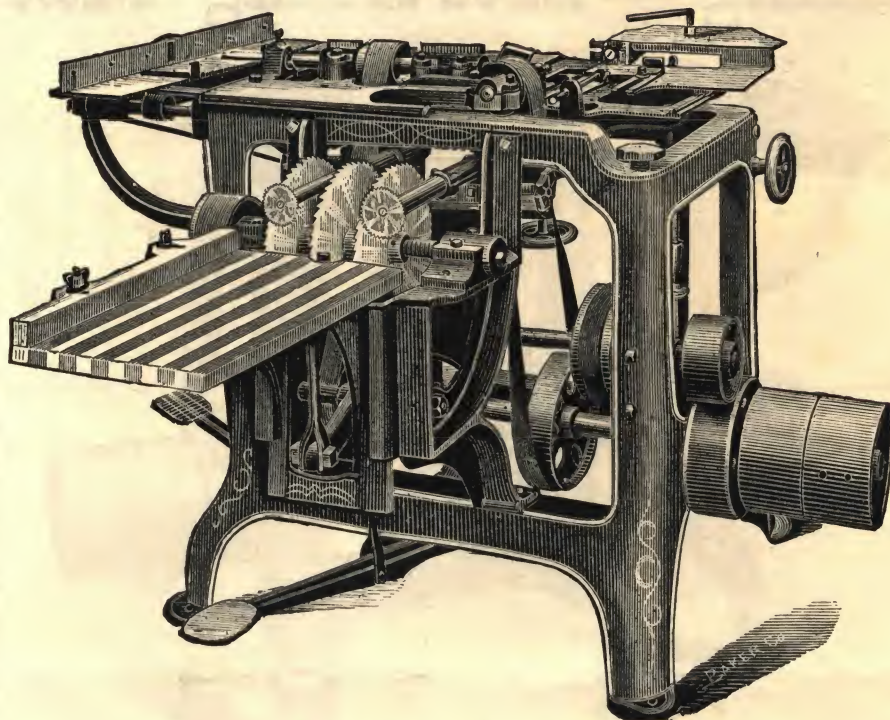
SEND FOR ILLUSTRATED CATALOGUE AND DISCOUNT.

GREENLEE'S

SASH, DOOR AND BLIND

RELISHING and MORTISING MACHINE.

Highest Prize and Medal of Honor Awarded
at the Centennial Exhibition.



No Sash and Door Manufacturer can Afford
to be without it.

Patented August 11, 1874.

Net Price, \$300.00. Wedge Attachment, extra, \$25.00.

This cut represents a machine for Relishing Sash, Doors and Blinds; also for making the recess in the rail for the end of the rod in blinds, and for making the mortise for the bars in the bottom and meeting rail in sash. Sash is relished by one operation, and by one handling, while it requires three separate operations in the old way. Blinds are relished and the recess made for end of rod by one operation; the old way requires five. The meeting and bottom rail are also mortised by one operation, being done as quickly as a round hole could be made by a common boring bit, the chips being all cleaned out ready to put the sash together. The work is performed by a hollow chisel, the bit working on inside. It makes a square hole as soon as a bit will a round hole. The door relishing is done with five saws, as shown in the cut, by one handling; will relish 1,000 doors a day. The sash and blind relishing can be done without stopping the mortising of the meeting and bottom rails, or the relishing of doors. The mortising of sash can be done without interfering with the other parts. It can be all run together without interference, doing each as rapidly as when running single. The machine is guaranteed to do all that is claimed for it; simple and durable, not often requiring repairs, and is the most rapid machine for doing the work named which is made; occupies small space; built of iron and steel in a most substantial manner; adapted for either large or small shops; for regular sizes, or for odd or ordered work; will save as much on one kind as the other. Machine is furnished with one set of bits, which include one chisel and bit, one size routing cutter, one set of saws for relishing doors. The counter shaft has loose and tight pulley, 8 inch diameter, $4\frac{1}{2}$ inch face, and should make 1,000 revolutions per minute.

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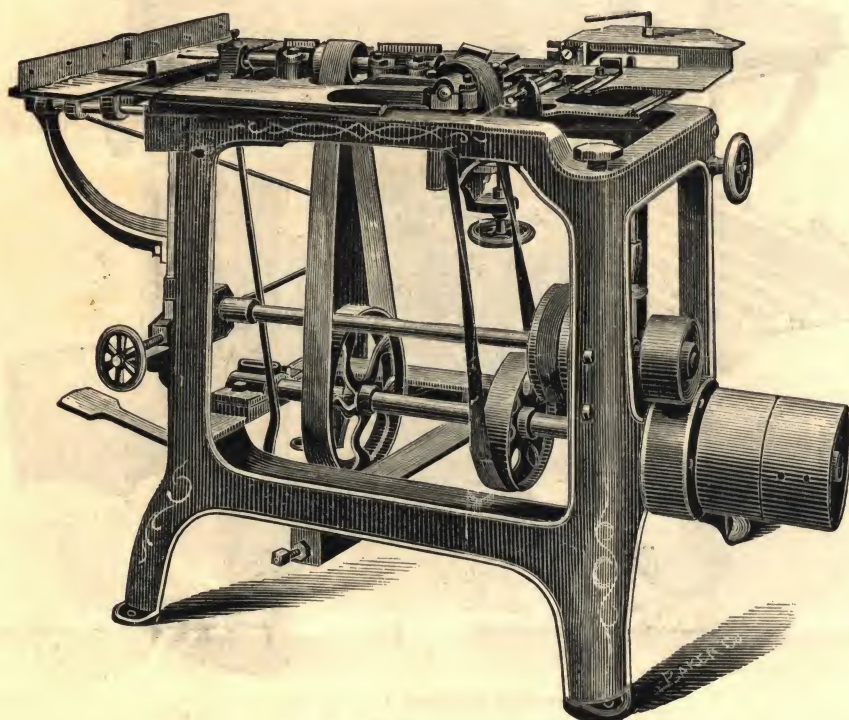
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GREENLEE'S

SASH AND BLIND

Relishing and Mortising Machine

THIS MACHINE WAS AWARDED THE
HIGHEST PRIZE AT THE



CENTENNIAL EXHIBITION AND RE-
CEIVED THE MEDAL OF HONOR.

PATENTED AUGUST 11, 1874.

Net Price, - \$225.00.

This cut represents a machine for Relishing Sash and Blinds and making the mortise in meeting and bottom rails in sash. It is same machine as shown, without the Door Relishing attachment, and is intended for shops that either have a Door Relisher or do not manufacture doors; can also be used as blind stile boring machine, doing the work as fast as any machine using one bit. Parties purchasing this machine and finding afterward that they require a Door Relisher also, can have the Door Relishing Attachment put on. The machines are all fitted for the attachment; it requires only a short time to take it off or put it on. The price, **\$75.00** additional.

Counter shaft has loose and tight pulleys, 8 inch diameter, $4\frac{1}{2}$ inch face; should make 1,000 revolutions per minute.

The above machines are made for mortising furniture and other light work, without the Relisher. Price, **\$175**
Without Blind Routing Attachment..... 200

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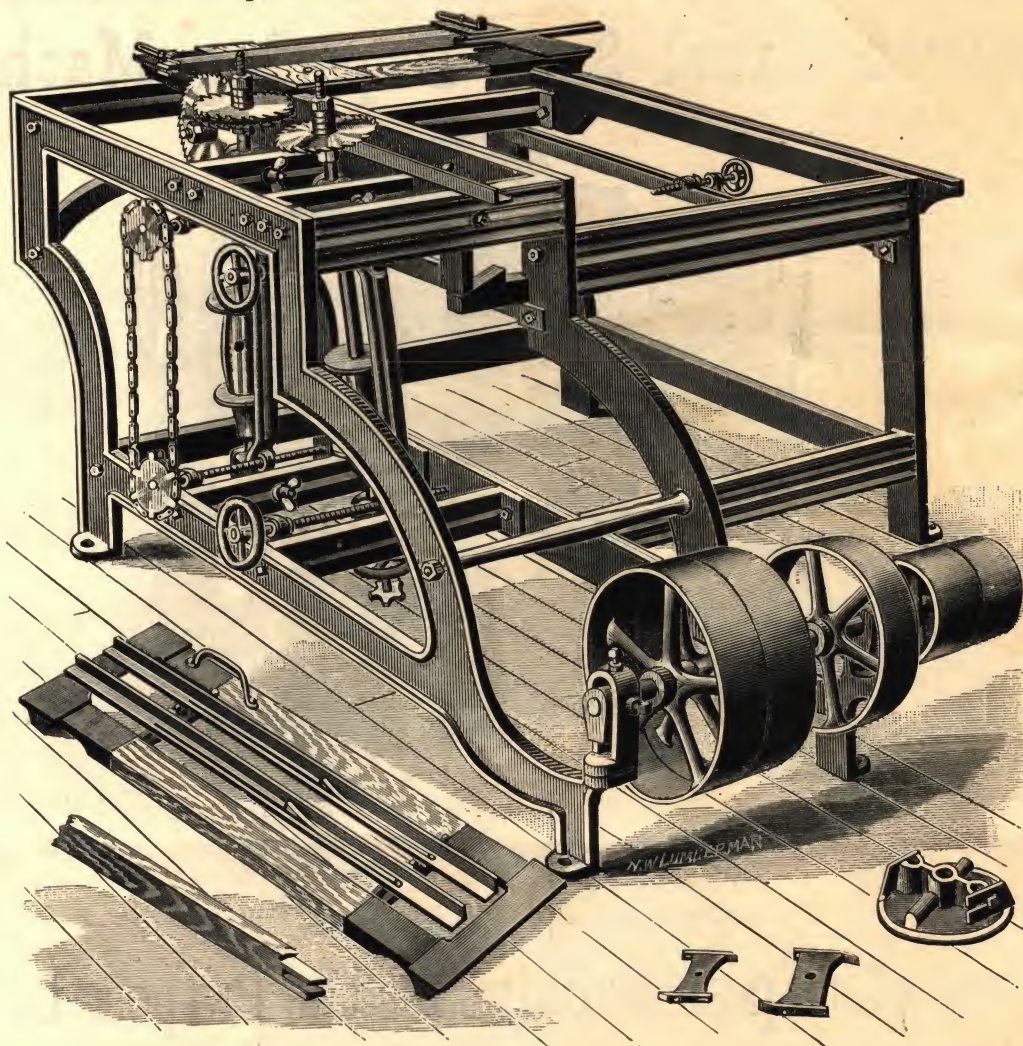
227, 229 & 231 West Twelfth St, CHICAGO, ILL,

Manufacturers of Wood Working Machinery.

SASH AND DOOR MACHINERY A SPECIALTY.

SEND FOR ILLUSTRATED CATALOGUE.

Greenlee's Improved Combination Sash Machine.



The above cut represents our Improved Combination Sash Machine. We think we can safely say that it will do fifty per cent. more work than any other machine made. It not only does the work rapidly, but does it in the best manner possible. In fact it is THE machine for making sash. No factory, doing a large business, can afford to be without it. Seeing it work is enough to convince. It is very simple and durable; not easy to get out of repair; made in a substantial manner of iron and steel. All boxes are filled with the best of metal; also adjustable and self-oiling.

It cuts off to a length, traverses the stile (for sash), sizes them for the meeting rail, making either square or dovetail mortise, and cleaning out the core two stiles at once. It tenons, copes and cleans out the relish in the meeting rail (of dovetail or slotted sash) at one operation, and fits the same to the stile by using table shown in cut. It traverses the muntins to a length, copes and fits them to the sticking of the stile, either single or in blocks. It works grooves from $\frac{1}{8}$ to $\frac{3}{4}$ inch, any depth. It dados perfectly at any angle from square to a mitre.

DIRECTIONS.

In dovetailing sash, use all the arbors; adjust the saws to give the required mortise or dovetail. Second, adjust the stop or gauge on the sliding table to give the proper length; then place two stiles with their backs together; now pass the table across the machine, cutting the two stiles to an exact length with the cutting-off saw, dovetailing or slotting, squaring, etc. To traverse or cope muntins, remove the back saw and use the cutting-off saw and forward arbor, with the cope head in the latter.

Mitreing angles are regulated by adjusting the rests on the table.

Dadoing is done by removing the saws from all the arbors and placing the dado head on the cutting-off arbor.

The countershaft has loose and tight pulleys, 8 inch diameter, $4\frac{1}{2}$ inches face, and should make 650 revolutions per minute.

Price, including Slotting without Dovetailing.....	\$250.00
" Dovetailing Table, extra.....	25.00
" Pin Saws for cutting Square Pins, extra.....	25.00

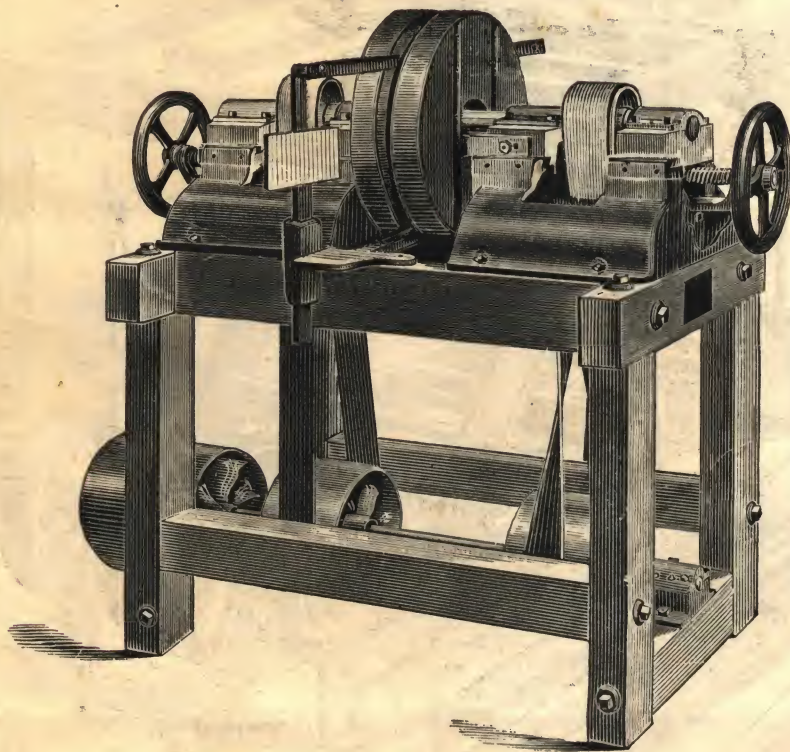
GREENLEE BROS. & CO.,
Manufacturers of Wood Working Machinery

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— GREENLEE —

Improved Panel Sand-Papering Machine.



Price, - - \$125.

The Best & Cheapest Machine for the Purpose in Use.

WILL SAND-PAPER PANELS FOR 500 DOORS, BOTH SIDES, PER DAY.

The above cut represents a machine designed for sand-papering door panels, and other work, such as castings and other flat surfaces which are not more than 13 inches wide.

It sand-papers both sides of a panel by once passing through, doing it in the best manner possible, and very rapidly.

The top of the disks are used for sand-papering the raise on raised panels. If only one side is to be sand-papered, remove the sand-paper from one disk.

The disks are adjustable for different thicknesses and can be changed when the machine is in motion as well as when standing still.

Machines guaranteed to do as represented.

GREENLEE BROS. & CO.,

Manufacturers of Wood-Working Machinery,

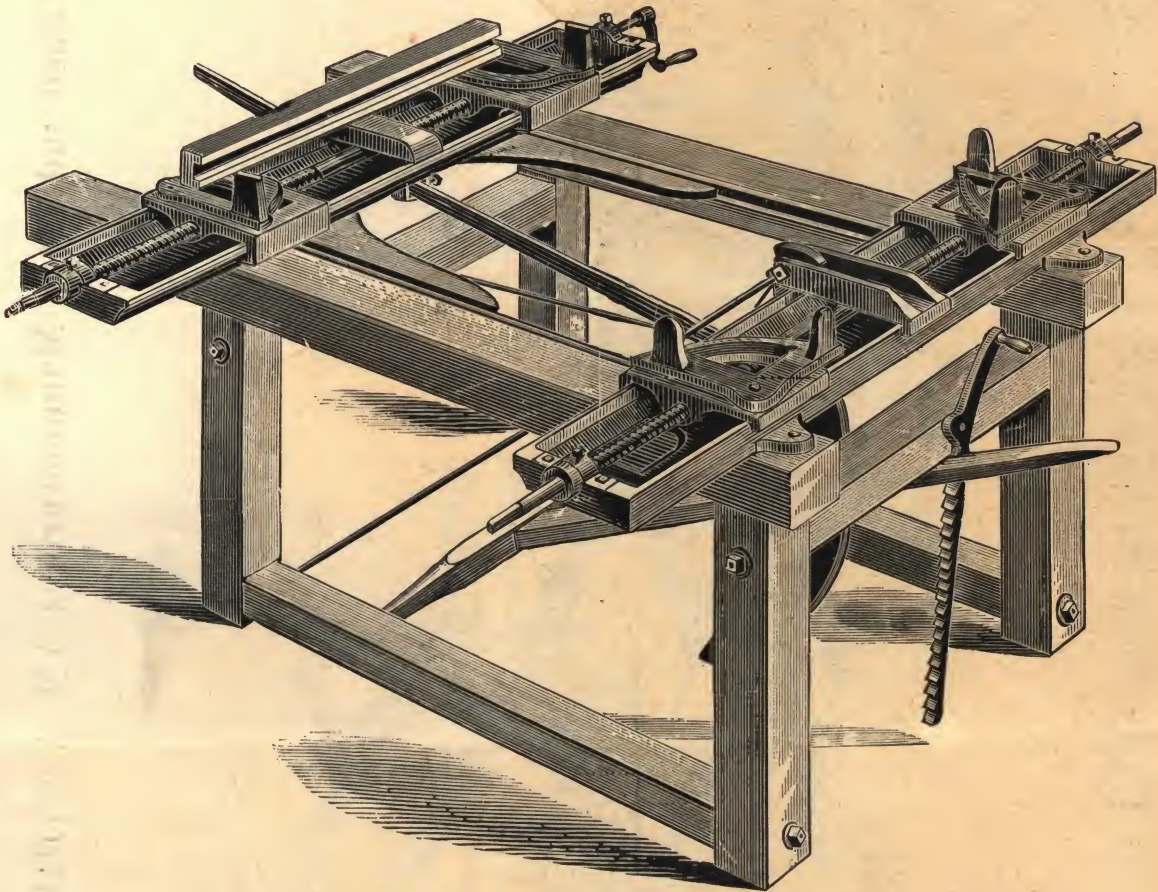
SASH, DOOR AND BLIND MACHINERY A SPECIALTY.

229 & 231 WEST TWELFTH STREET, CHICAGO.

SEND FOR ILLUSTRATED CATALOGUE AND DISCOUNT.

GREENLEE'S NEW IMPROVED SASH CLAMP.

MOORE'S PATENT.



Price, - \$100.

THE BEST AND CHEAPEST CLAMP FOR THE PURPOSE IN USE.

The bars which hold the corners are made of iron, with a right and left hand screw in each, which holds and moves the corners

When the screw is turned it moves each corner an equal distance from the center and holds without set screws.

When it is set square for one size, it is square for all sizes, and does not get out of square.

The clamp is very heavy and strong in every respect. We think we can safely say it has no equal.

By using this clamp, from fifty to seventy-five per cent. of labor is saved over other methods of clamping sash. It not only brings every joint up to its place, but makes the sash perfectly square, clamping the four sides all at one operation, the operator simply pressing the lever down with his foot. It clamps all sizes and brings the work square every time. Either pins or wedges can be used.

DIRECTIONS—If the clamp is found to be out of square, loosen the collar at each end of the screw, and move both until they are in line with the other one on opposite bar, then tighten the collars, and you have it square, and it will remain so.

Care should be taken that there is no lost motion in slides, and the bars are parallel with each other.

GREENLEE BROS. & CO.,
Manufacturers of Wood Working Machinery,

227, 229 & 231 West Twelfth Street, CHICAGO, ILL.

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GREENLEE'S DOOR AND BLIND CLAMP

Highest Prize and Medal of Honor Awarded at the Centennial Exhibition.



No Sash and Door Manufacturer CAN AFFORD TO BE WITHOUT IT.

Patented September 23, 1873. Price, \$85.

The above represents the best and cheapest machine for the purpose in use, doing the work perfectly and rapidly, clamping doors on ends as well as sides. The cut explains the machine, working simply by pressing down three levers with the foot and moving the screw by hand. The change from one size down to another is easily made, by moving the back dog either backward or forward. Will clamp Blinds and Sash, but is only intended for long Sash or odd sizes. In offering our new Patent Door Clamp we feel confident that we have anticipated the wishes of those who are constantly Manufacturing Doors and Blinds. WE GUARANTEE THE MACHINE TO GIVE ENTIRE SATISFACTION.

THERE ARE OVER 560 OF THEM IN USE GIVING THE BEST OF SATISFACTION.

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